UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

GEOPHYSICAL LOGS OF 14 TEST HOLES DRILLED DURING 1977 IN THE KOLOB COAL FIELD, KANE COUNTY, SOUTH-CENTRAL UTAH

By W. E. Bowers

and

P. M. Strickland

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This report has not been edited for conformity with Geological Survey editorial standards or stratigraphic nomenclature.

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INTRODUCTION

Under Contract No. 14-08-0001-15793, awarded by the U.S. Geological Survey, Geck, Inc., of Rock Springs, Wyoming, drilled and geophysically logged 14 drill holes in the eastern Kolob area of Kane County, Utah. The purpose of the drilling was to obtain information on the depth, thickness, and quality of coal beds in parts of the Kolob coal field where no information was avilable.

Natural-gamma, density, spontaneous-potential, and single-point resistance logs were run in completed holes. A complete set of logs was not run for some of the first six holes because of technical problems with the logging equipment. Four holes were cored at selected intervals and samples have been submitted for analyses. (A fifteenth hole, test-hole KB-2-CB, was not completed to the depth of the major coal zone, because of drilling problems, and is not included in this report.)

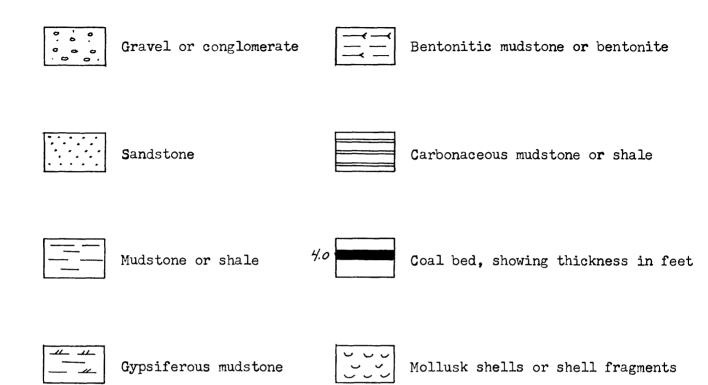
Seven holes were drilled on lands administered by the Bureau of Land Management (BLM). One hole was drilled on State land and six holes were drilled on private surface rights where coal is reserved to the United States. Drilling sites were selected in cooperation with the Bureau of Land Management and reclaimed according to standards set by BLM.

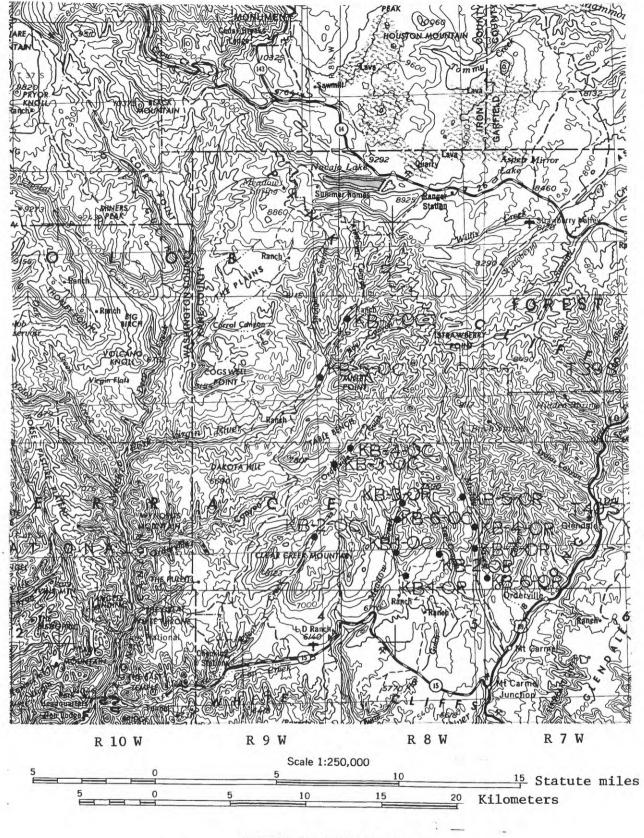
Drill-hole locations are shown on the index map (fig. 1). Table 1 lists drill-hole locations, surface ownership rights, surface elevations, depths drilled and logged, cored intervals, coal intervals, and thicknesses of coal beds.

STRATIGRAPHIC UNITS

- STRAIGHT CLIFFS FORMATION (UPPER CRETACEOUS)--Light-brown, tan, and gray, fine- to coarse-grained fluvial sandstone and gray to tan mudstone; light-gray, fine- to medium-grained marine sandstone and shale in lower part
- TROPIC FORMATION (UPPER CRETACEOUS)--Gray marine shale and mudstone with some fluvial tan to gray mudstone and sandy mudstone; contains tongues or lenses of littoral sandstone, including the Sugarledge sandstone west of Meadow Creek. Sugarledge sandstone is light-gray to white, porous, fine- to coarse-grained littoral sandstone
- DAKOTA FORMATION (LOWER(?) CRETACEOUS)--Light-brown, tan, or gray fluvial sandstone and mudstone with some lagoonal-paludal sandstone, mudstone, carbonaceous mudstone, and coal. The two major coal zones in the region, the upper and lower coal zones, occur at the top and near the base of the formation

LITHOLOGIC SYMBOLS





CONTOUR INTERVAL 200 FEET
WITH SUPPLEMENTARY CONTOURS AT 100 FOOT INTERVALS

Figure 1.--Drill-hole locations in the Kolob coal field, Kane County, Utah.

(Base from Cedar City 2° sheet)

Table 1. -- Summary of drill-hole information, Kolob coal field, Utah

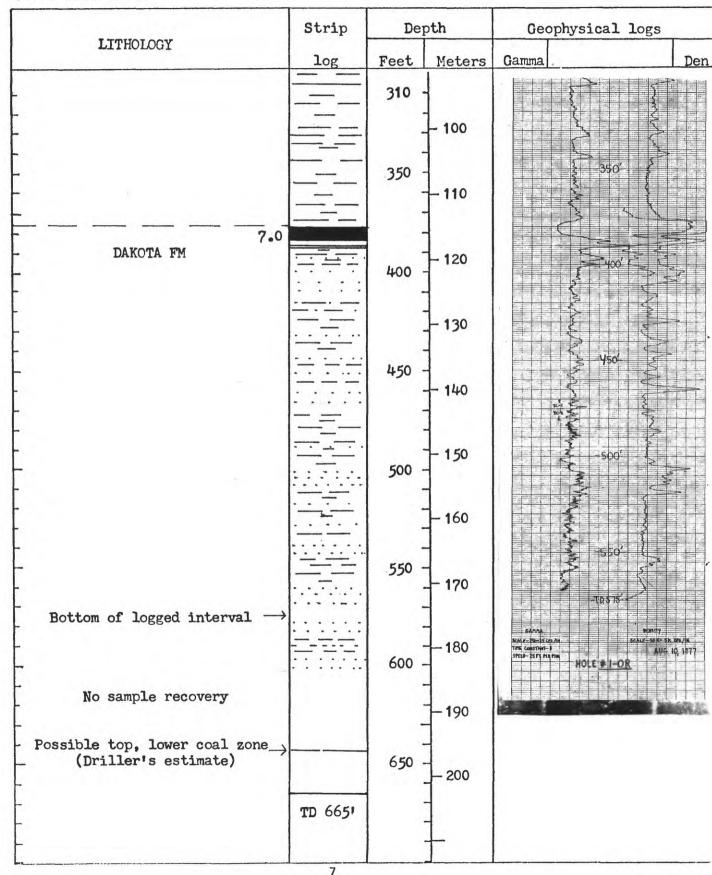
[Measurements are in feet; to convert to meters, multiply by 0.3048]

hole No.		Location (Salt Lake Meridian) Sec. T. S. R. W.	ridian) R. W.	Surface rights	Surface eleva- tion	rotal depth drilled	Total depth logged	Cored interval (driller)	41	Coal interval* (logged)		Estimated coal bed thickness (descending order)
KB-1-0R	33	07	8	Federal	6,520	665	575		D	377- 384	34	7.0
KB-2-0R	26	40	00	Federal	6,160	720	720		n	400- 407	70	7.0
KB-3-0R	16	70	80	Federal	6,870	1,280	1,283		u 1,	880- 891 1,200-1,221		11.0 2.0, 3.5, 2.0, 1.5
KB-4-0R	24	07	∞	Private	2,900	720	720	360 - 390 680 - 720	r d	377- 38 702- 71	383.8	6.6 2.0, 2.1, 1.5, 2.8, 2+
KB-5-0R	13	40	80	Federal	6,080	980	980		D I	632- 643 950- 962		11.0 6.0, 3.0, 2.0, 2.0
KB-6-0R	31	40	7	State	2,800	480	760		r d	85- 95 384- 398	95	2.0, 6.0 8.0, 2.0
KB-7-0R	25	70	80	Private	5,850	580	579		L U	230- 237 532- 553	37	7.0 2.0, 3.0, 2.5, 1.5
KB-1-0C	28	07	80	Private	6,520	650	652	275-295	D	281- 289	39	8.0
								580-650	Г	628- 646	9+	1.9, 1.7, 1.7, 1.0, 0.9
KB-2-0C	23	40	6	Private	7,500	800	800		n	795- 801)1	0.9
KB-3-0C	Н	40	6	Federal	6,850	550	548		n	476- 484	34	8.0
KB-4-0C	9	07	80	Federal	6,820	1,120	1,111	002-089	u 1,	670- 679 042-1,058	688	4.0, 1.5, 3.5
KB-5-0C	24	39	6	Federal	6,290	260	495	160-190	Þ	169- 176	9,	7.0
KB-6-0C	21	07	∞	Private	6,730	1,060	1,064		U L 1,	653- 665	55	7.0, 1.5 3.0, 1.5, 1.5, 2.0, 1.5
KB-7-0C	9	39	80	Private	006,9	1,160	1,160		U 1,	1,130-1,138	38	8.0

*U, Upper coal zone; L, Lower coal zone

Hole no. KB-1-OR Date logged 8/10/77 Surface e	elevation (ft) 6,520'
Loc.: State UTAH Cnty. KANE T. 40 S. R. 8 W. S	Sec. 33 , SESENE
Drilled depth (ft) 665' Logged depth (ft) 57	5' Water level (ft) 293'
Drilling fluid: X Air X Water Foam X Mud Geophysical Logs:	X Fiber
Spontaneous potential: Scale	Logging speedfpm
Resistance: Scale	Logging speedfpm
Gamma: T.C. 1 Sec. Scale 25 CPS/inch	Logging speed 25 fpm
Gamma dens: T.C.1 Sec. Scale 5000 CPS/inch	Logging speed 25 fpm

LITHOLOGY	Strip	De	pth	Ge	ophysical logs	5
ETINOLOGI	log	Feet	Meters	Gamma		Den
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	1					
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			-80		-	
			7			
						BQ UNL
		300	-90		300'	



Hole no. KB-2-OR Date logged 8/21/77	Surface elevation (ft) 6,160'
Loc.: State UTAH Cnty. KANE T. 40 S.	R. 8 W. Sec. 26 , NWNESW
Drilled depth (ft) 720' Logged dep	th (ft) 720' Water level (ft) 86'
Drilling fluid: Air x Water x Foa Geophysical Logs:	m Mud Fiber
Spontaneous potential: Scale 100 MV/inc	Logging speed 25 fpm
Resistance: Scale 100 Ohms/in	nch Logging speed 25 fpm
Gamma: T.C. 1 Sec. Scale 25 CPS/incl	Logging speed 25 fpm
Gamma dens: T.C. 1 Sec. Scale 5000 CPS/in	hch Logging speed 25 fpm

LITHOLOGY	Strip	De	pth	Geophysical logs
TITIOTOGI	log	Feet	Meters	Gamma De
ALLUVIUM		0 -	T 0	
	a	50	10	50'
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TROPIC FM		100	30	100 ¹
		150	40	30 1 5.1
		150	50 	
		200	- 60	206
			70	250
		250 -	80	
		300		300′

Cored interval

T TOUGH COV	Strip	De	pth	Geo	ophysical logs	
LITHOLOGY	log	Feet	Meters	Gamma		Den
		310	- 1 00	Na Maria		
		350	11 0		350	
TROPIC FM	7.0	400	120		100	
DAKOTA FM		liro	_ 1 30		-450	
	三三	450	140			
		500 -	- 1 <i>5</i> 0		-500{	
		550	– 1 60		Jan 1 - 5501 }	
			<u> </u>			
		600	1 80	A TOWN	-6001	
		650	190		650	
		3,70	_ 200	1		
		700_	210	1	7007	-1-1

LITHOLOGY	Strip	Dep	th	Geo	physical logs	
DITION	log	Feet	Meters	Gamma		Den
	TD 7201	710-720-	1	SPEEL- 25 FT/MIN	TD 720' HOLE # 2-OR (MINALE)	Avg. 21, 1117
		-				

Hole no. KB-3-OR Date logged 8/26/77 Surface	elevation (ft) 6,8701
Loc.: State UTAH Cnty. KANE T. 40 S, R. 8 W,	Sec. 16 , NESWNE
Drilled depth (ft) 1,280' Logged depth (ft) 1	,283' Water level (ft) 32'
Drilling fluid: Air _X Water Foam _X Mud Geophysical Logs:	Fiber
Spontaneous potential: Scale 50 MV/inch	Logging speed 20 fpm
Resistance: Scale 100 Ohms/inch	Logging speed 20 fpm
Gamma: T.C.1 Sec. Scale 50 CPS/inch	Logging speed 20 fpm
Gamma dens: T.C.1 Sec. Scale 2.500 CPS/inch	Logging speed 20 fpm

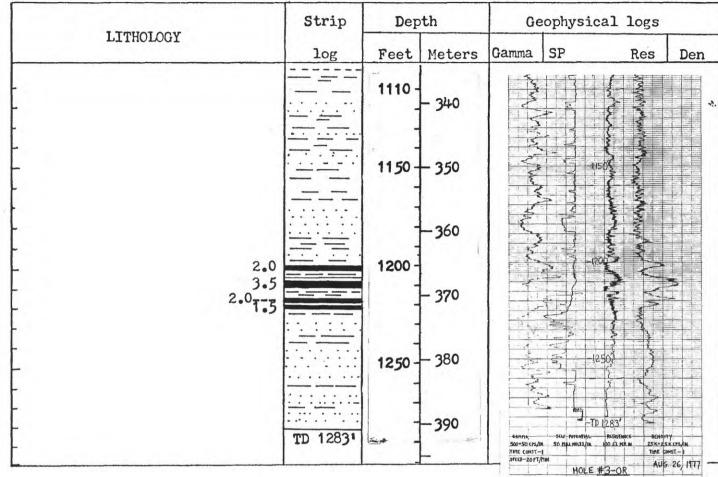
LITHOLOGY	Strip	De	pth	Ge	ophysica	l logs	
DITROLOGI	log	Feet	Meters	Gamma	SP	Res	Der
ALLUVIUM		0	Ī				
STRAIGHT CLIFFS FM		50	10		5 0'	5	32 FT 5
STRAIGHT CLIFFS FM			20				8 3.0R
		100	30		l lo		
	<u></u>	150	40		150		
	-:-:		50				
TOODTO THE		200	- 60		700		
TROPIC FM		250	70		250		
	===		80				
		300	90		300		

Cored interval

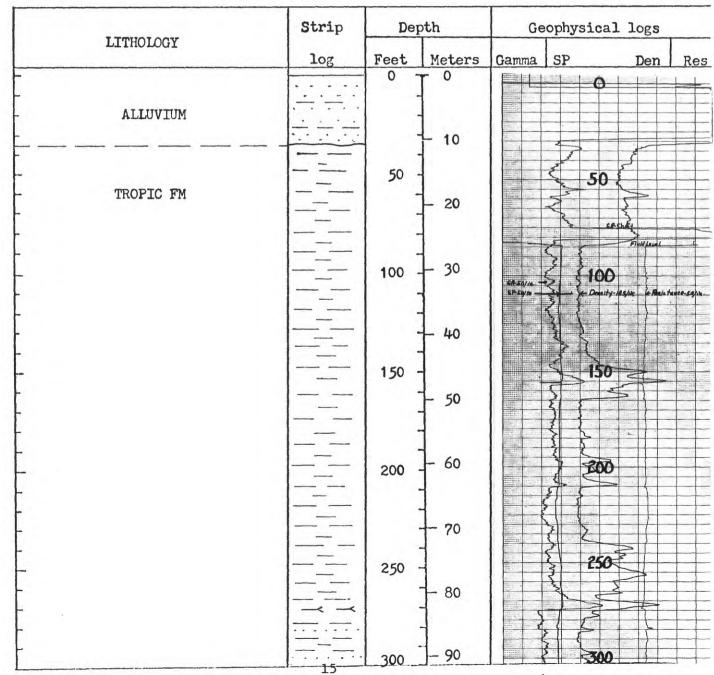
LITHOLOGY	Strip	De	pth	Ge	ophys	ical :	logs	
DITHOLOGI	log	Feet	Meters	Gamma	SP		Res	Der
-		310						
	====		- 100			Ì		
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-		350	110					
-				3	3	350 €		
-			- 120					
		400	F 120	3				
			1			400/		
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-		450 -					1	
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Sugarledge Ss			_210	1	$\left\{ \left[\cdot \right] \right\}$	-7607	5	
	12	700	11	- 1	1	-rur	15	-

Cored interval

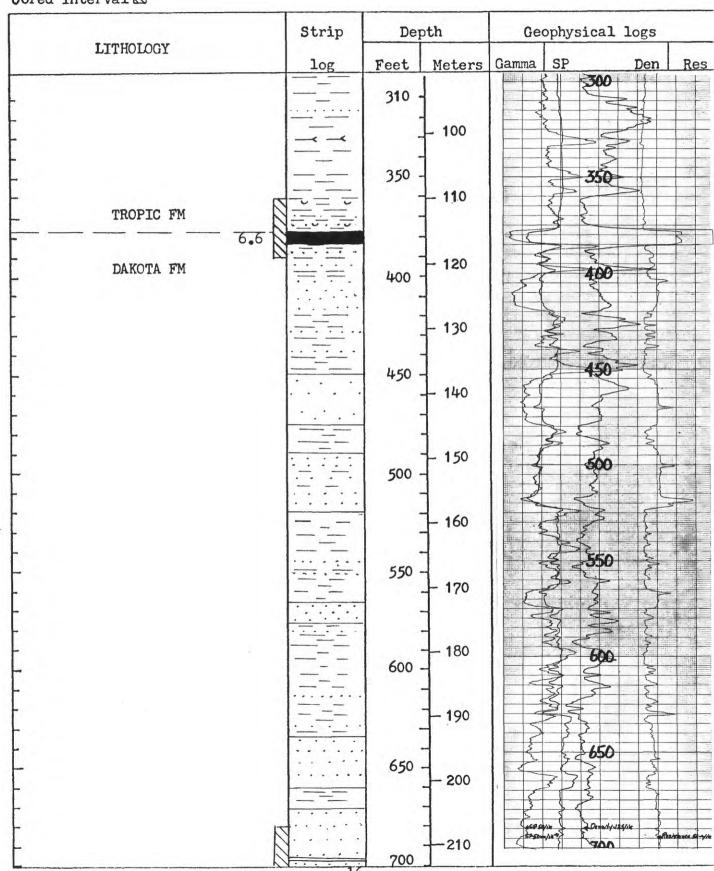
LITHOLOGY	Strip	De	pth	Ged	physica	l logs	
LITHOLOGI	log	Feet	Meters	Gamma	SP	Res	Den
	 	710	- 220				
		750	-2 3 0		\$ 750 \$ 1		
	::::::::::::::::::::::::::::::::::::::	800	-240		800		
			250				
		850	-260		1 850		
DAKOTA FM		900	-270		900		
			-280				
		950	-290	}			
		1000	-300		-loxx		
			-310				
		1050	-320		1 050 1 1		
		1100	-330	3	1100		

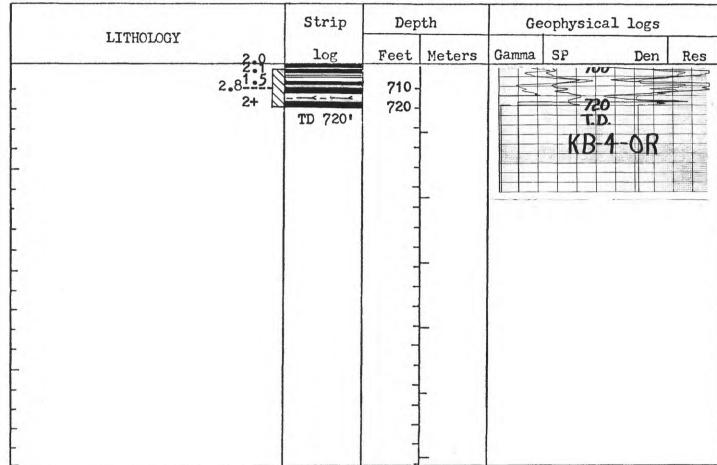


Hole no. KB-4-OR	Date logged	9/16/77 Surface	elevation (ft) 5.	9001
Loc.: State UTAH	Cnty. KAN	E T. 40 S , R. 8 W ,	Sec. 24 , SENE	
Drilled depth (ft)_	720'	Logged depth (ft)_	720' Water leve	el (ft) 84.5'
Drilling fluid: Geophysical Logs:	Air X Wa	ter _ Foam X Mud	X Fiber	
Spontaneous potentia	al: Scale _	50 MV/inch	Logging speed	20 f pm
Resistance:	Scale _	50 Ohms/inch	Logging speed	20 fpm
Gamma: T.C.3 S	Sec. Scale	50 CPS/inch	Logging speed	20 fpm
Gamma dens: T.C.3	Sec. Scale _	125 CPS/inch	Logging speed	20 fpm



Cored interval





Hole no. KB-5-OR Date logged 9/16/77	Surface elevation (ft) 6,080'
Loc.: State UTAH Cnty. KANE T. 40 S.	R. 8 W. Sec. 13 , SENERW
Drilled depth (ft) 980' Logged dept	h (ft) 980' Water level (ft) 49'
Drilling fluid: Air X Water Foam Geophysical Logs:	X Mud X Fiber
Spontaneous potential: Scale 25 MV/inch	Logging speed 20 fpm
Resistance: Scale 25 Ohms/inch	Logging speed 20 fpm
Gamma: T.C. 3 Sec. Scale 50 CPS/inch	Logging speed 20 fpm
Gamma dens: T.C. 3 Sec. Scale 100 CPS/inch	Logging speed 20 fpm

	T TMHOT OOM		Strip	De	pth	Ge	ophys	ical logs	
	LITHOLOGY		log	Feet	Meters	Gamma	SP	Den	Res
	ALLUVIUM			50	0 10		<===	SO DO	STEWN,
					20	GP COAT	SP ASIM.	Demit 10 0/10 (Resiste	
	TROPIC FM			100	30	***************************************	}	100	
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					<u>-</u> 50	*			
-			=-	200	-60		3	200	
-		Ì		250	-70		\$	250	
					-80				
				300	-90		3	300	1 1

ITTHOLOGY	Strip	De	pth	Geo	physica:	l logs	
LITHOLOGY	log	Feet	Meters	Gamma	SP	Den	Res
		310		- -1	S 1 1 1 1		
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			110				
		400	120				
			420		\$ 40		
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TROPIC FM		450	140		450) >	
]				
		500	150		500	0	
			1 60				
	-=-	550	450		550		
			170			3	
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			100				
	11.0		1 -190		\$ 3	2	3
DAKOTA FM		650	200	£ 5	65	0	
					3 3		
	· · · · · · · · · · · · · · · · · · ·	700	_210		37A		

Cored interval

ITTHOLOGY	Strip	Depth		Ge	ophysic	al logs	
LITHOLOGY	log	Feet	Meters	Gamma	SP	Den	Res
		710	- 220				
	 	750	_230			50	
DAKOTA FM		800	-240		8	200	
			250				
		850	- 260		8.	50	
		900	-270		9(00	
			-280	- C	S A A S/III	the sist.	nee-Agin
$2.0 - \frac{6.0}{2.0}$		950	-290				
	TD 980'				KB-:	D. 5-OR	
		-	-	tolpo-y			
			-		4-Den Zero	Col. 800 ->	
	20		-				

Hole no. KB-6-OR Date logged	9/11/77	Surfa	ce eleva	tion (f	t) 5,	800'	
Loc .: State UTAH Cnty. KANE	T. 40 S.	R. 71	V. Sec.	31 . N	WSW		
Drilled depth (ft) 480	Logged dep	th (ft)	4601	Wate	r leve	1 (ft) 16	6.21
Drilling fluid: \underline{X} Air \underline{X} Wat Geophysical Logs:	er Foa	m M	iud F	'iber			
Spontaneous potential: Scale	50 MV/incl	h	Lo	gging s	peed _	20	_fpm
Resistance: Scale	20 Ohms/i	nch	Lo	gging s	peed _	20	_fpm
Gamma: T.C. 2 Sec. Scale	50 CPS/inc	ch	Lo	gging s	peed _	20	_fpm
Gamma dens: T.C. 2 Sec. Scale	100 CPS/i	nch	Lo	ogging s	peed _	20	_fpm
LITHOLOGY	Strip	Dej	oth	Ge	ophysi	cal logs	
Dimensor	log	Feet	Meters	Gamma	Den	Res	SP
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TROPIC FM		-	- 20				>
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I TOUGH AGY		Strip	rip Depth		Ge	ophysic	al logs	
LITHOLOGY		log	Feet	Meters	Gamma	Den	Res	SP
	8.0 2.0	TD 460'	310 - - 350 - - 400 - - - 450 -	- 100 - 110 - 120 - 130	atom ty	1 Library	450 Fine Sylve	

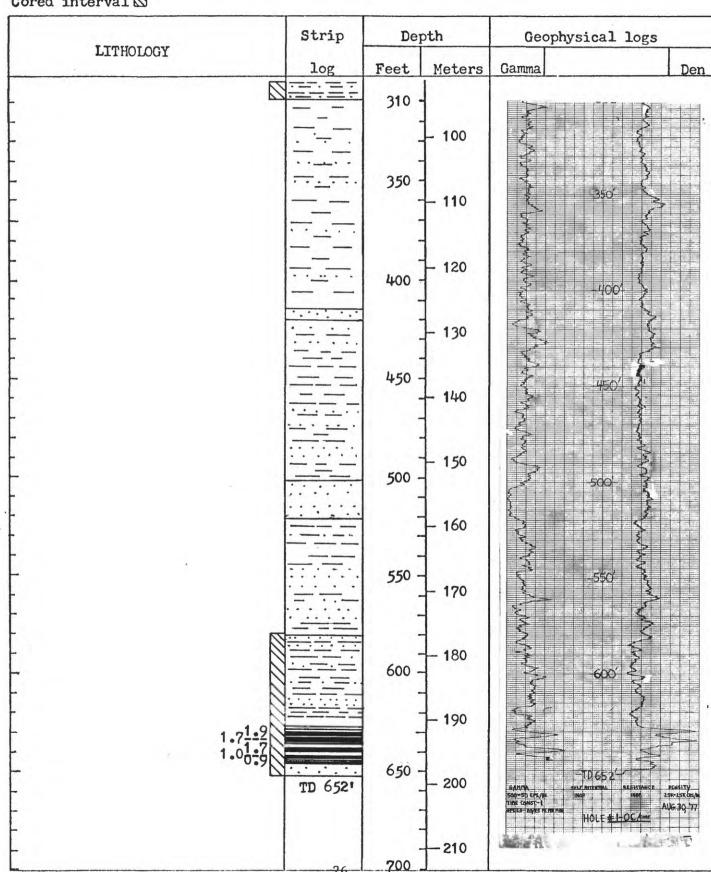
Loc.: State UTAH Cnty. KANE	T 10 C					
	1.403	R. 8 V	V. Sec.	25 ,]	VE	
Drilled depth (ft) 580' I						
Drilling fluid: X Air X Water Geophysical Logs:						
Spontaneous potential: Scale			Lo	gging s	peed	fpm
Resistance: Scale			Lo	gging s	peed	fpm
Gamma: T.C. 1 Sec. Scale 2	5 CPS/inch		Lo	gging s	peed	fpm
Gamma dens: T.C. 1 Sec. Scale 50	000 CPS/in	ch	Lo	gging s	peed	fpm
LITHOLOGY	Strip	Der	oth	Ge	ophysical log	s
DITHOLOGI	log	Feet 0 -	Meters	Gamma		Den
TROPIC FM DAKOTA FM 7.0		50 - 100 - 150 - 200 -	-10 -20 -30 -40 -50 -60 -70 -80			

Cored interval

LITHOLOGY			pth	deophy	sical logs	
	log	Feet	Meters	Gamma		Den
		310	- - 100			
		350	110			
		400	- 120 - 130		FIG. 1	
		450	140		40	
		500 -	- 150			
2.0 3.0 1.5		5 5 0 -	– 160		560	
	TD 5801		170		580	
			-			iji b
			-			

Hole no. KB-1-OC Date logged	8/30/77	Surfa	ice eleva	tion (ft	6.5201	
Loc.: State UTAH Cnty. KA	NE T. 40 S.	R. 81	V. Sec.	28 , SW	SENW	
Drilled depth (ft) 650'	Logged dep	th (ft)	6521	Water	level (ft) 4	11
Drilling fluid:Air X Wa Geophysical Logs:	ter _ Foa	m _ N	fud X F	iber	Cored inte	rva1
Spontaneous potential: Scale _			Lo	gging sp	eed	_fpm
Resistance: Scale _			Lo	gging sp	eed	_fpm
Gamma: T.C. 1 Sec. Scale	50 CPS/inch	1	Lo	gging sp	eed 20/25	_fpm
Gamma dens: T.C. 1 Sec. Scale	2500 CPS/in	nch	Lo	egging sp	eed 20/25	_fpm
	Strip	Dej	oth	Geo	physical logs	
LITHOLOGY	log	Feet	Meters	Gamma		Den
- ALLUVIUM	÷ : : : : : : : : : : : : : : : : : : :	50	10		O.F. Wire	Sjer
TROPIC FM Sugarledge Ss		100	- 20 - 30		100'	
-		150	- 40 - 50		150'	
-		200	- 60		-200′	
		0.50	70		250	
		250	-80		2DU }	
8.0		200				2

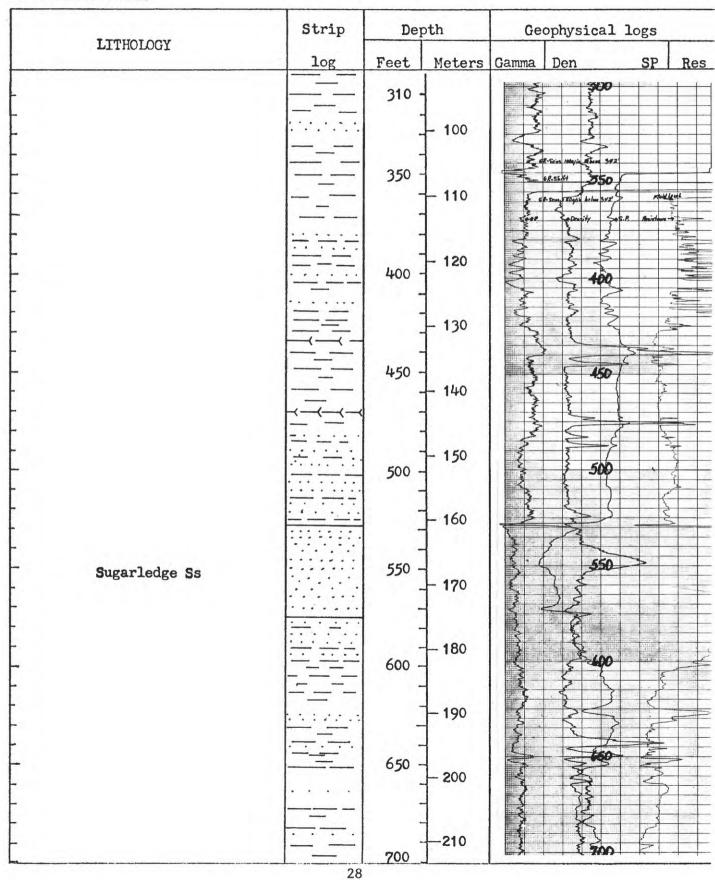
Cored interval



Hole no. KB-2-OC Date logged 9/1	1/77 Surface elevation (ft) 7,500'
Loc.: State UTAH Cnty. KANE T.	40 S, R. 9 W , Sec . 23 , NESESE
Drilled depth (ft) 800' Logg	ed depth (ft) 800: Water level (ft) 359:
Drilling fluid: Air X Water Geophysical Logs:	Foam X Mud X Fiber
Spontaneous potential: Scale 50 M	V/inch Logging speed 20 fpm
Resistance: Scale 20 0	hms/inch Logging speed 20 fpm
Gamma: T.C. 2 Sec. Scale 50 C	PS/inch Logging speed 20 fpm
Gamma dens: T.C. 2 Sec. Scale 100	CPS/inch Logging speed 20 fpm

LITHOLOGY	Strip	Der	Depth		Geophysical logs			
ZIIIOZOGI	log	Feet	Meters	Gamma	Den	SP	Re	
ALLUVIUM		0 -		-	0			
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	50	- 10	7	e Density			
STRAIGHT CLIFFS FM	<u>-</u>		- 20					
		100	30		100			
		150	40		150			
			- 50	2				
		200	- 60	W. W.	200			
TROPIC FM	===	250	70	The second second	250			
	<u> </u>		80					
	-===,	7 300	90		300			

Cored interval



Strip	Dep	oth	Ge	ophysica	l logs	
log	Feet	Meters	Gamma	Den	SP	Res
	710 -	-220				
	750	-230		150	A P to Cario force	
TD 8001	800	-240		Bac May 1800	Specimps A	- Janes
	-					
	log	log Feet	log Feet Meters	log Feet Meters Gamma 710 - 220 750 - 230 - 240 800 - 7D 800'	log Feet Meters Gamma Den 710 -220 -230 -240 TD 8001 800	log Feet Meters Gamma Den SP

Hole no. KB-3-OC Date logged 9/24/77 Surface ele	evation (ft) 6.850
Loc.: State UTAH Cnty. KANE T. 40 S, R. 9 W, Sec	c. 1 , NESESE
Drilled depth (ft) 550' Logged depth (ft) 548	Water level (ft) 104'
Drilling fluid: Air X Water X Foam X Mud X Geophysical Logs:	Fiber
Spontaneous potential: Scale 25 MV/inch	Logging speed 20 fpm
Resistance: Scale 25 Ohms/inch	Logging speed 20 fpm
Gamma: T.C. 3 Sec. Scale 50 CPS/inch	Logging speed 20 fpm
Gamma dens: T.C.3 Sec. Scale 100 CPS/inch	Logging speedfpm

LITHOLOGY	Strip	Depth		Geophysical logs			
 211102001	log	Feet	Meters	Gamma	SP	Den	Re
		0	To			1	
ALLUVIUM		50	1- 10 1		1		
 			- 20				
		100	30				
TROPIC FM		150	40				
	- <u>-</u> -		- 50				
		200	<u>-</u> 60		326		<i>y</i>
Sugarledge Ss		250	70		Ast 26		
			- 80	+			
		300	-90	1	2 30	2 3	

Cored interval

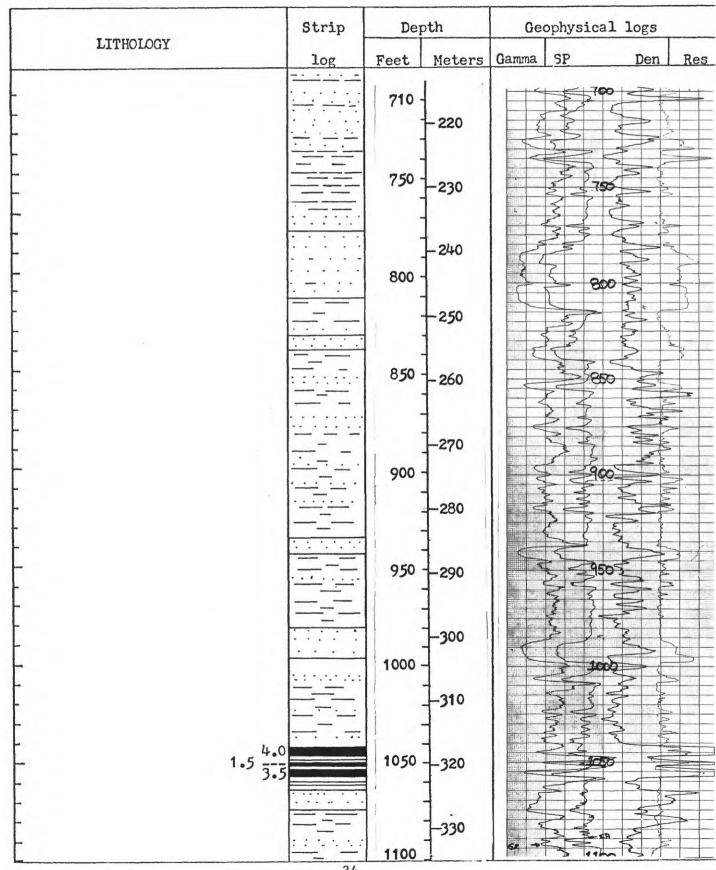
T TOUGH COM	Strip	Dej	pth	Ge	ophysica	l logs	
LITHOLOGY	log	Feet	Meters	Gamma	SP	Den	Res
DAKOTA FM				Gamma	SP 550	Den	Res

Hole no. KB-4-OC Date logged 9/22/77	Surface elevation (ft) 6,820'
Loc.: State UTAH Cnty. KANE T. 40 S. H	R. 8 W. Sec. 6 , NENWNE
Drilled depth (ft) 1,120' Logged depth	n (ft) 1,111' Water level (ft) 124'
Drilling fluid: _ Air \underline{X} Water \underline{X} Foam Geophysical Logs:	X Mud X Fiber
Spontaneous potential: Scale 25 MV/inch	Logging speed 20 fpm
Resistance: Scale 25 Ohms/inch	Logging speed 20 fpm
Gamma: T.C. 3 Sec. Scale 50 CPS/inch	Logging speed 20 fpm
Gamma dens: T.C. 3 Sec. Scale 100 CPS/inch	Logging speed 20 fpm

LITHOLOGY	Strip	De	oth	Geophysical logs			
 21moDd1	log	Feet	Meters	Gamma	SP	Den	R
		0 -	To		ΗΨ	111	
ALLUVIUM				- 57 800		Popular	-
ALLO VION]				3
 			- 10	GR.			
	·	50	-		50	3	
			200			(
			20		2 2 2 1	\$	35.7
	1						
	===	100	30		-131		
STRAIGHT CLIFFS FM		100]			Said South	ſ
]	SP per		- 2 F	
			- 40	S.P. DAY		S FLUED LOVEL	20
	.:::::		-	1		7	
		150 -		1	150		201
			- 50	3	1		H
]	3	1 8	117	>
				1 P	1 5		+
		200 -	- 60		2.05		
TROPIC FM			-		}		
			1				
			70	5	SASA		-
		250 -			25		+
		200	- 00		3		E
			80				1
	_		1		}		-
		300	- 90	144	30	,	

Cored interval

LITHOLOGY	Strip	De	Depth		ophysic	al logs	
DITHOLOGI	log	Feet	Meters	Gamma	SP	Den	Res
		310	1 00				-
		350 ·	110		35		
		400	- 120	4	40	8	
Sugarledge Ss		450 -	– 1 30		} 45		
			140				\$
	===	500 - -	- 150 - 160		5 50		
		550 - -	- 1 70		55		
		600 -	1 80			0	
			– 1 90			3	
TROPIC FM	9.0	650 - - -	- 200)		
DAKOTA FM		700	210		70		



I TRUO I OCY	Strip	De	pth	Ge	ophysica	l logs	
LITHOLOGY	log	Feet	Meters	Gamma	SP	Den	Res
	TD 1111'	1110			131 7.0 KB-4	Ca. Soon de	e-te-
					1		
	35		-				

Hole no. KB-5-OC Date logged	9/30/77	Surfa	ce eleva	tion (f	t)	6,2901	
Loc.: State UTAH Cnty. KANE	T. 39 S.	R. 9	W , Sec.	24 . N	WSEN	W	
Drilled depth (ft) 560'	Logged dep	oth (ft)	4951	Wate	r le	vel (ft) 1	71
Drilling fluid: Air x Wat Geophysical Logs:	er _ Foa	m <u>x</u> M	fud F	iber		Cored inte	rval
Spontaneous potential: Scale 2	5 MV/inch		Lo	gging s	peed	20	_fpm
Resistance: Scale 2	5 Ohms/inc	h	Lo	gging s	peed	20	_fpm
Gamma: T.C. 2 Sec. Scale 5	0 CPS/inch		Lo	gging s	peed	20	_fpm
Gamma dens: T.C. 2 Sec. Scale 2	00 CPS/inc	h	Lo	gging s	peed	20	_fpm
LITHOLOGY	Strip	Dej	oth	Ge	ophy:	sical logs	
BITHOLOGI	log	Feet	Meters	Gamma	SP	Den	Res
ALLUVIUM				şer.	del	County S-6	1
TROPIC FM		50 -	- 10 - 20 - 30	The second secon		100	
DAKOTA FM		150 -	- 50 - 60 - 70			200	
		250 -	-80			250	

Cored interval

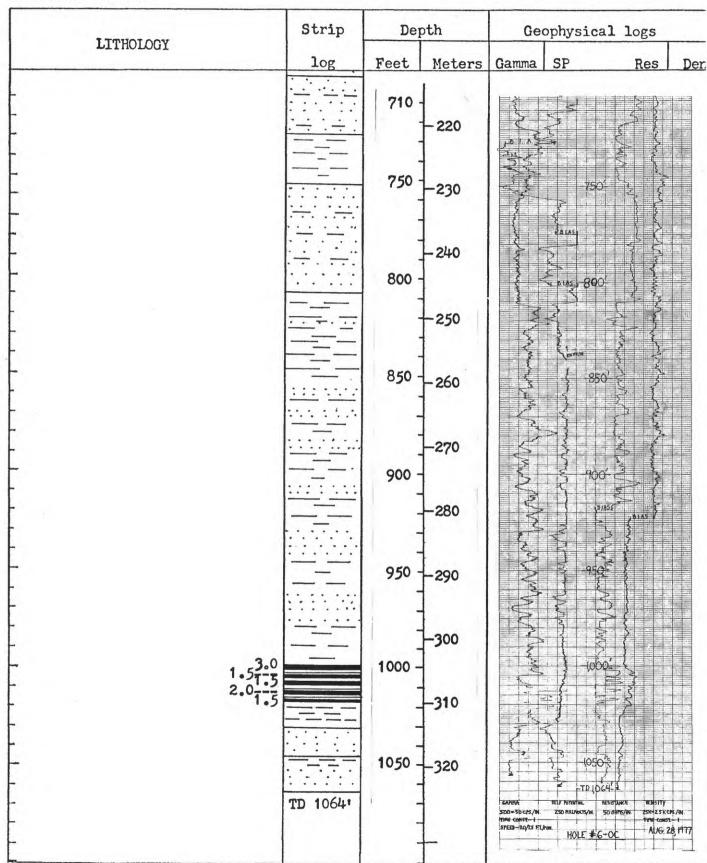
T TWYOT COY	Strip	Depth		Ge	ophysica	1 logs	
LITHOLOGY	log	Feet	Meters	Gamma	SP	Den	Res
		310	100				V T
		350	110		356		
DAKOTA FM		400	120		3 400		
			- 13 0				•
		450	140	SP/IN	450	A Paint	
-		500	150	65P403m	T-0	-5-00	
		550	160	658-3-00	OR board	(effe. zero den m	
	TD 560'		-		4		
- -							
-			=				
			=				
			I				

Hole no. KB-6-OC Date logged 8/28/	77 Surface elevation (ft) 6,730'
Loc.: State UTAH Cnty. KANE T. 40	S, R. 8 W, Sec. 21, NENENW
Drilled depth (ft) 1,060' Logged	depth (ft) 1,064' Water level (ft) 130'
Drilling fluid: Air X Water Geophysical Logs:	Foam X Mud X Fiber
Spontaneous potential: Scale 250 MV	/inch Logging speed 20/25 fpm
Resistance: Scale 50 Ohm	s/inch Logging speed 20/25 fpm
Gamma: T.C. 1 Sec. Scale 50 CPS	/inch Logging speed 20/25 fpm
Gamma dens: T.C. 1 Sec. Scale 2500 C	PS/inch Logging speed 20/25 fpm

LITHOLOGY	Strip	De	oth	Ge	ophys:	ical 1	ogs	
BITHOLOGI	log	Feet	Meters	Gamma	SP		Res	Den
ALLUVIUM	: •:-:•: :=::-::-::-::-::-::-::-::-::-::-::-::-::	0	I			UR		
			10				4	
	===	50	_ 20			504		
TROPIC FM		400	- 30					
		100				100		}
		450	40			[50'	**************************************	
		150	- 50				3	\ \ \ \
		200	- 60			200'		
			70					
		250	80			250		
		300	90			300'		

Cored interval

LITHOLOGY	Strip	Depth		Geophysic		al logs	
LITHOLOGI	log	Feet	Meters	Gamma	SP	Res	Den
		310	1 00				
		350	110			50	
		400	- 120 - 130				
S ugarledge Ss		450	140				
		500	- - 1 <i>5</i> 0		50)O' }	
			160) } }		
		550	170				
		600 -	1 80				
TROPIC FM		600	-1 90		65		
DAKOTA FM	7:8	650	_200				
	===	700	210	7	Lauren 70		

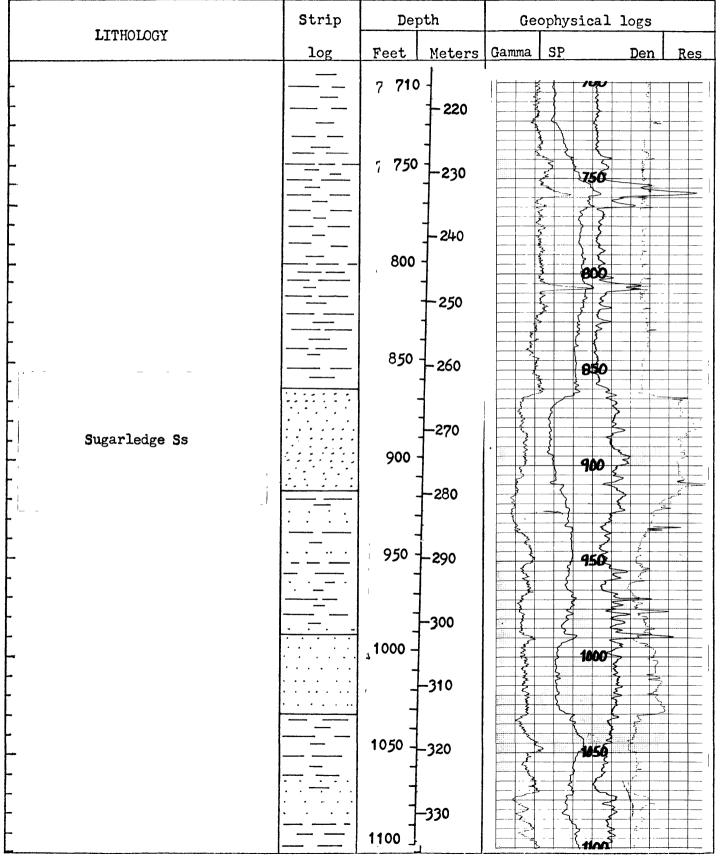


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Hole no. KB-7-OC Date logged 10/4/77 Surface elevation (ft) 6.900							
Loc.: State_	UTAH Cnty . KA	NE T. 39 S, R. 8 W	, Sec. 6 , SWSESW				
Drilled dept	h (ft) 1,160'	Logged depth (ft)	1,160' Water lev	el (ft) 3871			
Drilling flu Geophysical		ater Foam X M	ud <u>X</u> Fiber				
Spontaneous	potential: Scale	25 MV/inch	Logging speed	f pm			
Resistance:	Scale	25 Ohms/inch	Logging speed	fpm			
Gamma:	T.C. 2 Sec. Scale	50 CPS/inch	Logging speed	f pm			
Gamma dens:	T.C. 2 Sec. Scale	200 CPS/inch	Logging speed	fpm			

LITHOLOGY	Strip	Depth		Geophysical logs			
	log	Feet	Meters	Gamma	SP	Den	R
		0			-0	Westerd out hale	
ALLUVIUM		50	10	< >	50	Death	
			20				
		100	- 30 - 40		10	0	
		150 ·	- 50		15	0	127
STRAIGHT CLIFFS FM		200	- 60	*	20	0	
		200	70				
		250	- 80	And Control of the Co	25	0	
	· · · -	300	- - 90		> 30		

TTBUOLOGY	Strip	De	pth	Geophysical logs			
LITHOLOGY	log	Feet	Meters	Gamma	SP	Den	Res
	*	310	-		2		
TROPIC FM		•	100				
		3 <i>5</i> 0	- 11 0	The state of the s	350		
- -		400	120	GR-1	Find Law 1	Omsity 48	ne/atence
-			- 1 30			1278	
-		450 ·	140	10 mg/m	450		
	· · · · · · · · · · · · · · · · · · ·	500	1 50		500)	
-		-	1 60		55		
-		550 -	170			5:	
		600 -	1 80		600		+ + -
-		- -	1 90			>	-
-		650	200			}	
	42	700	210			•	i



LITHOLOGY	Strip	Depth	Geophysical logs			
LITHOLOGI	log	Feet Meter	s Gamma SP Den Res			
TROPIC FM		1130	Aft pintens			
DAKOTA FM		//50 = -	2 1150			
-	1D MED		66.50/in Direction 1160 Brands -/in SP = Atmosph KB -7-OC			
-		<u>-</u> -	€Cen. 2±10			
-		1	CE Les			
-			·			
	ı					